

PATENT**CLAIM AMENDMENTS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising:

processing a first voice having a first characteristic to a first level of precision using a first finite impulse response filter, wherein the first level of precision is based on the first characteristic;

processing a second voice having a second characteristic to a second level of precision, different from the first level of precision, using a second finite impulse response filter;

wherein the first voice and the second voice are processed substantially in parallel;

wherein the second level of precision is based on the second characteristic; and

wherein a number of coefficients used by the first finite impulse response filter is different from a number of coefficients used by the second finite impulse response filter.

2. (Previously Presented) The method of Claim 1, wherein the processing of the first voice and the second voice provides localization of the first voice and the second voice in three-dimensional space.

3. (Original) The method of Claim 1, wherein the first characteristic includes a first interpreted distance and the second characteristic includes a second interpreted distance different from the first interpreted distance.

4. (Original) The method of Claim 1, wherein the first characteristic includes a first audio type and the second characteristic includes a second audio type different from the first audio type.

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5. (Original) The method of Claim 1, wherein the first characteristic includes a first priority level and the second characteristic includes a second priority level different from the first priority level.

6. (Previously Presented) The method of Claim 1, further including prioritizing the first voice and the second voice.

7. (Original) The method of Claim 6, wherein the coefficients used by the finite impulse response filter are determined using a Head Related Transfer Function.

8. (Currently Amended) A method comprising:
receiving a first voice data having a first characteristic;
receiving a second voice data having a second characteristic, different from the first characteristic;
assigning a first number of filter coefficients to the first voice data based on the first characteristic; and
assigning a second number of filter coefficients, different from the first number of coefficients, to the second voice data based on the second characteristic;
processing the first voice data using a first finite impulse response filter, wherein a number of filter coefficients used by the first finite impulse response filter is equal to the first number of filter coefficients assigned to the first voice data; and
processing the second voice data using a second finite impulse response filter, wherein a number of filter coefficients used by the second finite impulse response filter is equal to the second number of filter coefficients assigned to the second voice data,
wherein the first voice data and the second voice data are processed substantially in parallel.

9. (Canceled)

10. (Currently Amended) The method of Claim 8, wherein the first characteristic and the second characteristic are determined prior to ~~the step of receiving~~ receiving the first voice data and the second voice data.

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11. (Currently Amended) The method of Claim 8, wherein the first characteristic and the second characteristic are determined subsequent to receiving the first voice data and the second voice data~~the step of receiving~~.

12. (Original) The method of Claim 8, wherein the first characteristic includes a first interpreted distance and the second characteristic includes a second interpreted distance different from the first interpreted distance.

13. (Original) The method of Claim 8, wherein the first characteristic includes a first audio type and the second characteristic includes a second audio type different from the first audio type.

14. (Original) The method of Claim 8, wherein the first characteristic includes a first priority level and the second characteristic includes a second priority level different from the first priority level.

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15. (Currently Amended) A method comprising:

assigning a first number of filter coefficients to a first voice having a first characteristic,
wherein first number of coefficients is based on the first characteristic;

assigning a second number of filter coefficients to a second voice having a second
characteristic different from the first characteristic, wherein second number of
coefficients is based on the second characteristic and is different from the first
number of filter coefficients, and where the sum of the first number of coefficients
and the second number of coefficients is no greater than a predetermined fixed
number of coefficients;

applying a first Head Related Transfer Function to the first voice, the first Head Related
Transfer Function using a number of coefficients equal to the first number of
coefficients assigned to the first voice; and

applying a second Head Related Transfer Function to the second voice, the second Head
Related Transfer Function using a number of coefficients equal to the second
number of coefficients assigned to the second voice, wherein the first Head
Related Transfer Function and the second Head Related Transfer Function are
applied substantially in parallel.

16. (Previously Presented) The method of Claim 15, further including:

determining the first characteristic of the first voice; and

determining the second characteristic of the second voice.

17. (Canceled)

18. (Canceled)

19. (Original) The method of Claim 15, wherein the first characteristic includes a first
interpreted distance and the second characteristic includes a second interpreted distance different
from the first interpreted distance.

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20. (Original) The method of Claim 15, wherein the first characteristic includes a first audio type and the second characteristic includes a second audio type different from the first audio type.

21. (Original) The method of Claim 15, wherein the first characteristic includes a first priority level and the second characteristic includes a second priority level different from the first priority level.

22. (Previously Presented) The method of Claim 15, wherein applying a Head Related Transfer Function is used to provide localization of sound in three-dimensional space.

23. (Previously Presented) A method comprising:
receiving a plurality of voices, wherein the plurality of voices is representative of a plurality of sound sources;
distributing a fixed number of coefficients among the plurality of voices, wherein a number of coefficients assigned to a voice is based on a priority associated with the voice; and
applying a Head Related Transfer Function to each voice of the plurality of voices using a finite impulse response filter, wherein the number of coefficients used by the finite impulse response filter to filter a voice is based on a number of the fixed number of coefficients distributed to the voice.

24. (Previously Presented) The method of Claim 23, wherein the priority associated with a voice is determined prior to receiving the plurality of voices.

25. (Previously Presented) The method of Claim 23, wherein the priority associated with a voice is determined subsequent to receiving the plurality of voices.

26. (Original) The method of Claim 23, wherein the priority associated with a voice is based on an interpreted distance of the voice.

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27. (Original) The method of Claim 23, wherein the priority associated with a voice is based on an audio type of the voice.

28. (Previously Presented) The method of Claim 23, wherein applying a Head Related Transfer Function is used to provide localization of sound in three-dimensional space.

29. (Previously Presented) The method of Claim 23, wherein distributing a fixed number of coefficients includes:

assigning a number of the fixed number of coefficients each subgroup of a plurality of subgroups;

associating each of the plurality of voices with one of the plurality of subgroups; and

distributing, for each subgroup of the plurality of subgroups, the number of coefficients assigned to the subgroup among the voices associated with the subgroup.

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30. (Currently Amended) A device comprising:

a processor;

memory operably coupled to said processor; and

a program of instructions capable of being stored in said memory and executed by said

processor, said program of instructions to manipulate said processor to:

receive a first voice data having a first characteristic;

receive a second voice data having a second characteristic different from the first characteristic;

assign a first number of filter coefficients based on the first characteristic; and

assign a second number of filter coefficients, different from the first number of filter coefficients, based on the second characteristic;

process the first voice data using a first finite impulse response filter, wherein a number of filter coefficients used by the first finite impulse response filter is equal to the first number of filter coefficients assigned to the first voice data; and

process the second voice data using a second finite impulse response filter, wherein a number of filter coefficients used by the second finite impulse response filter is equal to the second number of filter coefficients assigned to the second voice data, wherein the first voice data and the second voice data are processed substantially in parallel.

31. (Canceled)

32. (Original) The device of Claim 30, wherein the first characteristic and the second characteristic are determined prior to receipt of the first voice data and the second voice data.

33. (Original) The device of Claim 30, wherein the first characteristic and the second characteristic are determined subsequent to receipt of the first voice data and the second voice data.

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34. (Original) The device of Claim 30, wherein the first characteristic includes a first interpreted distance and the second characteristic includes a second interpreted distance different from the first interpreted distance.

35. (Original) The device of Claim 30, wherein the first characteristic includes a first audio type and the second characteristic includes a second audio type different from the first audio type.

36. (Original) The device of Claim 30, wherein the first characteristic includes a first priority level and the second characteristic includes a second priority level different from the first priority level.

37. (Currently Amended) A computer readable medium tangibly embodying a program of instructions, said program of instructions including instructions to manipulate a processor to:

- receive a first voice data having a first characteristic;
- receive a second voice data having a second characteristic different from the first characteristic;
- assign a first number of filter coefficients based on the first characteristic; and
- assign a second number of filter coefficients, different from the first number of filter coefficients, based on the second characteristic;

process the first voice data using a first finite impulse response filter, wherein a number of filter coefficients used by the first finite impulse response filter is equal to the first number of filter coefficients assigned to the first voice data; and

process the second voice data using a second finite impulse response filter, wherein a number of filter coefficients used by the second finite impulse response filter is equal to the second number of filter coefficients assigned to the second voice data, wherein the first voice data and the second voice data are processed substantially in parallel.

38. (Canceled)

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39. (Original) The computer readable medium of Claim 37, wherein the first characteristic and the second characteristic are determined prior to receipt of the first voice data and the second voice data.

40. (Original) The computer readable medium of Claim 37, wherein the first characteristic and the second characteristic are determined subsequent to receipt of the first voice data and the second voice data.

41. (Original) The computer readable medium of Claim 37, wherein the first characteristic includes a first interpreted distance and the second characteristic includes a second interpreted distance different from the first interpreted distance.

42. (Original) The computer readable medium of Claim 37, wherein the first characteristic includes a first audio type and the second characteristic includes a second audio type different from the first audio type.

43. (Original) The computer readable medium of Claim 37, wherein the first characteristic includes a first priority level and the second characteristic includes a second priority level different from the first priority level.